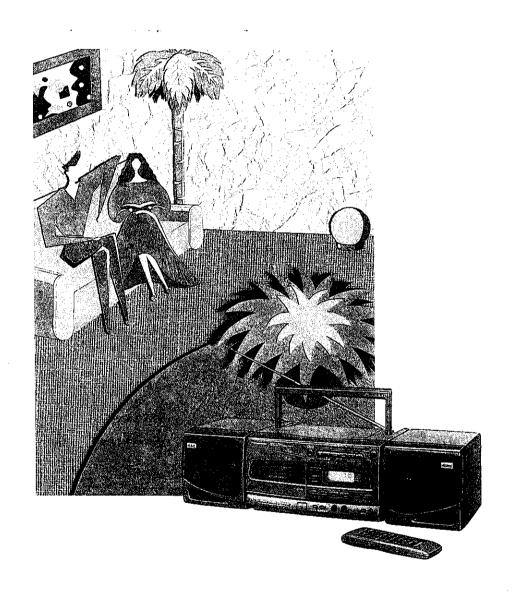
Panasonic

Portable Stereo Component System **RX-E300**

Operating Instructions



The "EB" indication shown on the packing case indicates United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely.







Dear customer

Thank you for purchasing this product.

For optimum performance and safety, please read these operating instructions carefully.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION!

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIAȚION EXPOSURE.

DO NOT OPEN COVERS AND DO NOT REPAIR YOUR-SELF. REFER SERVICING TO QUALIFIED PERSONNEL.

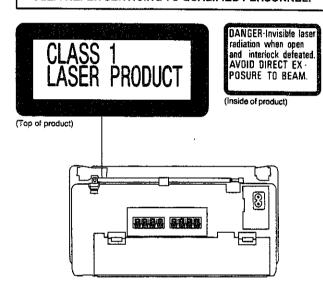


Table of Contents

Before use	
Caution for AC mains lead	. 3
Precautions	
Supplied Accessories	. 4
Power Sources	
Connecting the Speaker System	. 6
Concerning the Remote Control	. 7
Location of Controls	. 8
Setting the Clock	. 9
Programming Broadcast Stations	. 10
Operation	
Common Operations	
Turning the unit ON/OFF	. 11
Adjusting the volume	. 11
Displaying the present time or the tape counter	. 11
Easy Listening	12
Listening to Radio Broadcasts	
Preset tuning	. 13
Listening to broadcast stations which have not been	
programmed (Manual tuning)	. 14
For better reception	. 14
Listening to CD	15
Selecting and listening to your favorite tracks	
(Program play)	. 16
To repeat tracks (Repeat)	. 17
Playing selections in random order (Random play)	. 17
Starting CD play from a desired track (Direct play)	18
To skip tracks	. 18
To search forward or backward	. 18
Listening to Tapes	
Recording	
Recording CD	
Easy CD recording	. 20
Recording using an alternative method to	
easy CD recording	. 21
Recording Radio Broadcasts	22
Tone quality	
· · · · · · · · · · · · · · · · · · ·	_
Selecting the Equalizer Effect	23
Timer	
Using the Wake-up Timer	24
To use the sleep timer in conjunction with	
the wake-up timer	25
Using the Recording Timer	
To use the sleep timer in conjunction with the	20
recording timer	07
Using the Sleep Timer Function	28
General information	
Using Microphone/Headphones	29
Concerning CD	30
Concerning Cassette Tapes	30
Maintenance	. 31
Quick Reference of Remote Control Operations	. 32
Troubleshooting Guide	. 34
Technical Specifications Back co	over

Caution for AC mains lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRI-CAL SHOCK IF THE CUT OFF PLUG IS IN-SERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

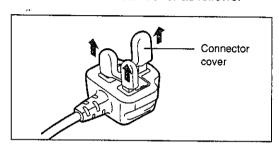
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol \perp .

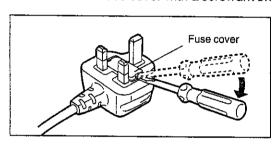
Before use

Remove the connector cover as follows.

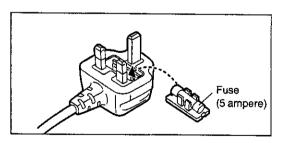


How to replace the fuse

1. Remove the fuse cover with a screwdriver.

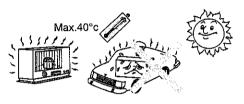


2. Replace the fuse and attach the fuse cover.



Precautions

- •If the set is not used for a long period of time or is used only from an AC power source, remove all the batteries to prevent potential damage due to possible battery leakage.
- Avoid using or placing this unit near sources of heat. Do not leave it in an automobile exposed to direct sunlight for a long time with the doors and windows closed as this may deform the cabinet.
- Avoid cuts, scratches, or poor connections in the AC mains lead, as they may result in possible fire or electric shock hazard. Also, excessive bending, pulling or splicing of the cord should be avoided.
- Do not unplug the AC mains lead by pulling on the cord. To do so may cause premature failure or shock hazard.
- Do not operate the set on AC power in a bathroom, as a potential shock hazard may result.
- When not in use, disconnect the AC mains lead from the household mains outlet.
- Be careful that curtains and similar materials do not obstruct the ventilation holes.



In these operating instructions, "unit off" is defined as the following mode.

"Standby" when AC power is used.

"Battery power off" when batteries are used.

Supplied Accessories



Please check and identify the supplied accessories.

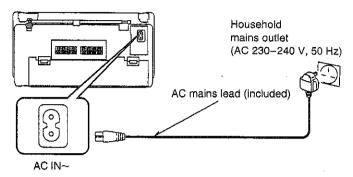
BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE THE FOLLOWING CONNECTION.

Power Sources

This system can be operated either on the household AC power or the dry cell battery power.

To operate on AC power

Connect the included AC mains lead to the AC IN- socket of this unit and your household mains outlet.



Note

AC mains lead and household mains outlet are different according to

To operate on dry cell battery power

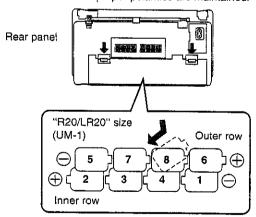
When using the memory back-up batteries (see right), insert them first.

Please read "Use of batteries" on page 7.

Battery installation

Unplug the AC mains lead from the household mains outlet and the AC IN \sim socket of the unit.

Open the compartment for the batteries and insert eight "R20/LR20" size (UM-1, not included) batteries into the battery compartment. Make sure that the batteries are installed in the designated numerical order and that the proper polarities are maintained.



- Batteries installed with incorrect polarities may leak and damage this unit.
- Do not mix batteries (old and new) or types (manganese and alkaline, etc.).
- If the unit is not used for a long period of time or is used only from an AC power source, remove the batteries to prevent potential damage from possible battery leakage.

Battery removal

Pull out the ⊖ side of battery No. 6.

Battery life

When the batteries are weak:

- The display of the front panel will start to flash.
- The unit will automatically turn itself off, then "U01" will be appeared on the display.

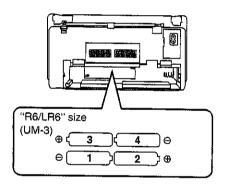
In those cases, replace all batteries with new ones.

Memory back-up batteries

In the event of a power failure, or if the AC mains lead is disconnected from the household mains outlet (during AC operation), or should the batteries fail, the memory back-up batteries will preserve the preset memory and the timer functions of this unit. Please read "Use of batteries" on page 7.

Battery installation

Insert four "R6/LR6" size (UM-3, not included) batteries into the battery compartment, making sure that the batteries are installed in the designated numerical order that the proper polarities are maintained



Battery removal

Press the
side of the battery No. 2.

Battery life

The life of the memory back-up batteries is about one year.

- •The life of the memory back-up batteries can be prolonged by keeping the AC mains lead plugged in the household mains outlet at all times.
- When disconnecting the AC mains lead, turn the unit off first using the POWER button.
- •The life of the memory back-up batteries is reduced if the AC mains lead is disconnected from a household mains outlet with the power still supplied.
- While exchanging the memory back-up batteries, be sure to connect the AC mains lead both to the unit and to the household mains outlet.

Connecting the Speaker System

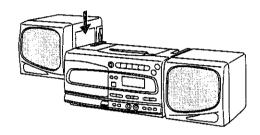
This unit can be used as a one-piece portable stereo system or a three-piece component system, by attaching or detaching the speaker system.

Before attaching or detaching the speakers, be sure to disconnect the speaker cables from the speaker terminals.

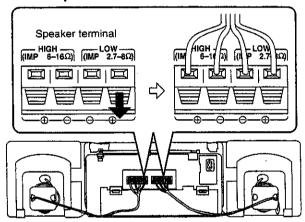
Be sure to press POWER to turn the unit off before connecting or disconnecting the speaker cables.

Attaching the speakers

1. Align the speaker with the main unit as shown in the figure, interlock the grooves and press down.



2. Connect the colored speaker cable to the same colored speaker terminals.

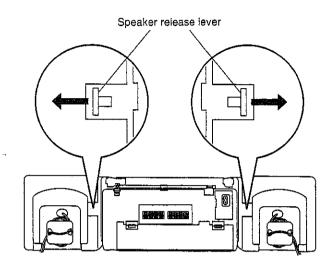


3. When using the unit with the speakers attached, wind the speaker cables as shown.

Note

Since a strong magnet is used for the speaker, keep magnetized commuter passes, tickets or personal credit cards, recorded tapes, watches, etc. away from the speakers. The magnet in the speakers may damage them.

Detaching the speakers

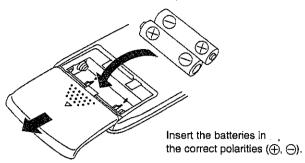


- Unlock the speaker release levers by pulling them in the direction shown above, and slide up each speaker.
- Connect the speaker cables to the speaker terminals.

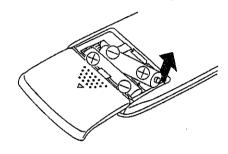
Concerning the Remote Control

Battery installation

Insert two "R03" size (UM-4, not included) batteries as shown below.



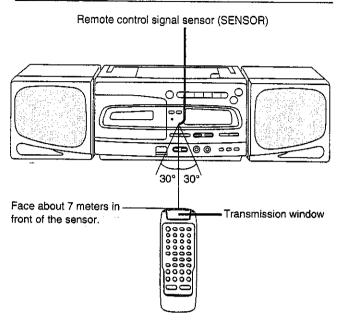
To remove the batteries, pull out the
side.



Use of batteries

- Do not mix old and new batteries, or batteries of different types (manganese with alkaline, etc.).
- Always remove old, weak or worn-out batteries promptly and dispose of them properly.
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- •If the unit is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.
- If a battery leaks, remove all batteries and dispose of them properly.
- Thoroughly clean the battery compartment before inserting new batteries.
- If the electrolyte comes into contact with skin or clothes, flush with water immediately.
- •Keep batteries out of reach of children.
- Do not use rechargeable (nickel-cadmium) type batteries.
- Do not attempt to recharge alkaline or manganese batteries.

Remote control unit's operation range



How to use the remote control unit properly

- Do not place obstacles between the remote control signal sensor and remote control unit.
- Do not expose the remote control signal sensor to direct sunlight or to the bright light of an invertor fluorescent light.
- Take care by keeping the remote control signal sensor and the transmission window free from dust.

To prevent maifunctioning of the remote control unit:

- Do not disassemble or reconstruct the unit.
- Do not place heavy objects on top of it.
- Do not leave it where it will be exposed to direct sunlight.
- •Do not spill beverages or other liquids over it.

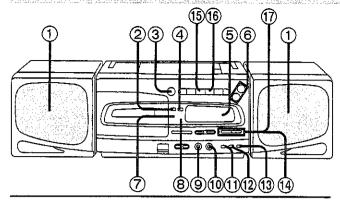
Battery life

The battery life is about one year.

Although the battery life varies depending on how often the device is used, the batteries should be replaced about once every year on the average.

The batteries should be replaced if commands from the remote control transmitter do not operate the unit even when transmitter is held close to the front panel.

Location of Controls

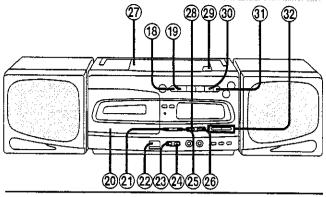


Basic controls

No.	Name R	ef. page
1	Speakers	6
2	Sleep timer button (SLEEP)	28
3	Power "STDBY () (AC)/ON" switch [POWER, STDBY () (AC)/ON] Press to switch the unit from on to standby mode or violan standby mode, the unit is still consuming a small a power.	
4	Preset equalizer button (PRESET EQ)	23
⑤	Display panel	11
<u>a</u>		
<u></u>	Volume control buttons (VOLUME)	11
	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, th tor lights up in standby mode and goes out when the turned on.	11 is indica-
	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, the tor lights up in standby mode and goes out when the	11 is indica- ie unit is
⑦ —	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, the tor lights up in standby mode and goes out when the turned on.	11 is indica- ie unit is
(7) (8)	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, th tor lights up in standby mode and goes out when th turned on. Remote control signal sensor (SENSOR)	is indica- ie unit is 7
(a) (a) (b) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, the tor lights up in standby mode and goes out when the turned on. Remote control signal sensor (SENSOR) Mixing microphone jack (MIX MIC)	11 is indicate unit is
(7) (8) (9) (10)	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, the tor lights up in standby mode and goes out when the turned on. Remote control signal sensor (SENSOR) Mixing microphone jack (MIX MIC) Headphones jack (PHONES)	11 is indicate unit is 7 29 29
(a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Standby indicator (STANDBY (b)) When the unit is connected to the AC mains supply, the tor lights up in standby mode and goes out when the turned on. Remote control signal sensor (SENSOR) Mixing microphone jack (MIX MIC) Headphones jack (PHONES) Timer set button (TIMER)	111 is indicate unit is 7 29 29 25, 27

Tuner controls

No.	Name R	ef. page
1 5	Band select button (BAND)	10, 12
(16)	Preset tuning button (PRESET TUNING)	12, 13



Deck controls

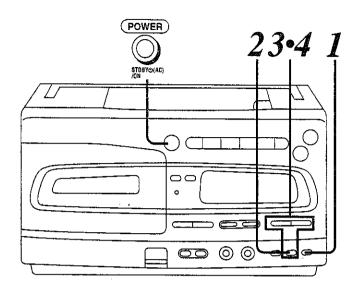
No.	Name	Ref. page
18)	Stop button (□ STOP)	19
19	Play/direction button ($\lhd \rhd PLAY/DIR$)	12, 19
20	Tape lid	19
21)	Rewind button (REW)	19
22	Tape lid open button (≜ EJECT)	19
23	Dolby noise reduction button (DOLBY NR)	19
24)	Counter reset button (COUNTER RESET)	19
25	Fast forward button (FF)	19
26	Recording standby button (REC PAUS	SE) 21, 22
CI) controls	
No.	Name	Ref. page
27)	CD lid	15

No.	Name	Ref. page
27	CD lid	15
28	Easy CD recording button (EASY CD REC)	20
29	CD lid open button (≜ CD EJECT)	15
30	Play/pause button (▷□□ PLAY/PAUSE	12, 15
31)	Stop/clear button (□ STOP/CLEAR)	15
32	Skip/search buttons	

(0 < 1 < 1 < 18)

Setting the Clock

The clock has a 24-hour display.



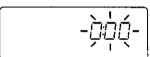
Example: Setting the clock to 16:20;

Press POWER.

TIME CHECK

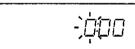
Press TIME CHECK to display the present time.

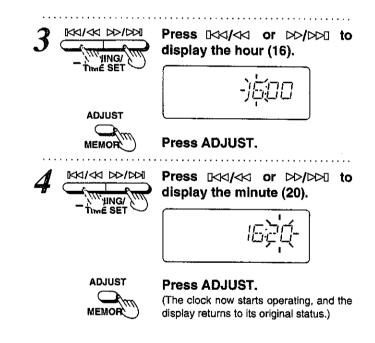
(The display changes each time the button is pressed.)



2 ADJUST

Press ADJUST.





For your reference:

You can set the clock even in the unit off mode (only when using AC power).

Programming Broadcast Stations

Once broadcast stations have been programmed, they can easily be tuned in at the touch of a button on the unit or on the remote control.

For U.K.:

Up to ten LW, MW and FM stations each can be programmed in the preset channels.

For Australia and New Zealand:
Up to ten FM and AM stations each can be programmed in the preset channels.

Example: Programming FM 88.10 MHz in preset channel 2;

I



For U.K.:

Press BAND to display "FM" .

→LW→MW→FM

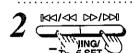
(The display changes each time the button is pressed.)

For Australia, New Zealand:

Press BAND to display "FM".

 \rightarrow AM \rightarrow FM

(The display changes each time the button is pressed.)



Press □
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|

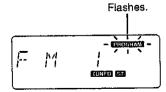
FM stations can be selected automatically (see right).

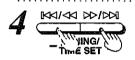


3

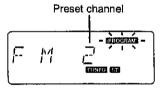


Press ADJUST.





Press [⋈</>
|</br>
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
<



5 ADJUST

While PROGRAMS is flashing, press ADJUST.

6

Repeat steps 2 to 5 to program the other stations.

Selecting FM stations automatically:

Keep pressing rod/d or rod/rod until the frequency display starts to change. A station with good reception is automatically selected and the selection process then stops.

To stop the selection at any time:

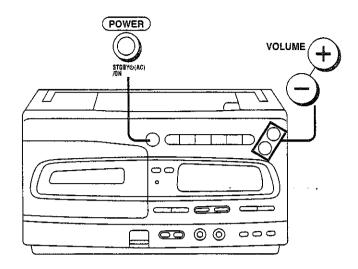
Press 144/44 or >>/>>0 again.

The selection may stop without tuning into any station if there is interference in the vicinity. In such a case, tap [IIII] or >>/>>| until a station's frequency is picked up.

Programming AM (LW/MW) stations:

- 1. Press BAND in step 1 to display AM (LW/MW).
- 2. Perform steps 2 to 6.

Common Operations



Turning the unit ON/OFF



To turn the unit ON: Press POWER.

The backlight of the display comes on.



To turn the unit OFF: Press POWER.

When using an AC power, the unit is turned to standby mode. (STANDBY & indicator lights.)

Adjusting the volume



Press VOLUME — or VOLUME + to adjust the volume to the desired level.

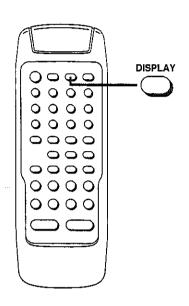
- +: Press to turn up the volume.
- -: Press to turn down the volume.

The volume level can be adjusted from "-- dB" (lowest) to "0 dB" (highest).

For your reference:

The volume can be adjusted even in the unit off mode (only when using AC power).

Displaying the present time or the tape counter



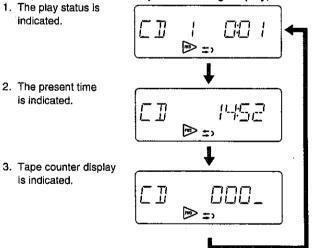
These operations come in handy to check the present time during play or to check the tape counter during recording. (Available only from the remote control)

DISPLAY

Press DISPLAY.

Each time the button is pressed, the display will change as follows;

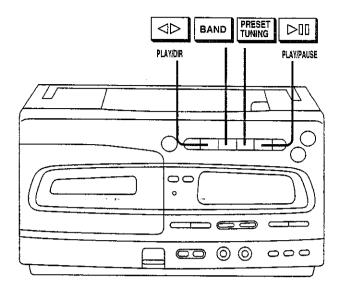
Example: When DISPLAY is pressed during CD play;



"----" appears for the tape counter display when no tape has been loaded.

Easy Listening

(Only when a household mains outlet is used for the unit)



When a CD or tape is inserted, you can start play directly by pressing a single button (even in the unit off mode).

Listening to CD:



Press ▷□□ PLAY/PAUSE.

Listening to tapes:



Press <> ▷ PLAY/DIR.

Listening to radio broadcasts:



Press BAND or PRESET TUNING.



For your reference:

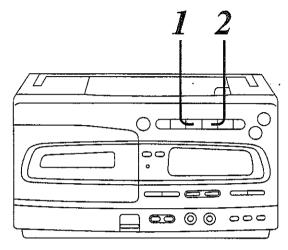
- You can play directly by pressing the same button on the remote control transmitter.
- Even when the unit is being powered by batteries, you can start play directly by pressing the single button (mentioned above) after turning on the unit.

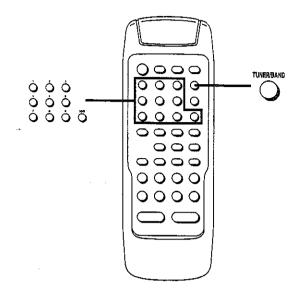
Listening to Radio Broadcasts

Preset tuning

Make sure you have completed the procedure for "Programming Broadcast Stations" (See page 10) beforehand.

To listen to a station without programming it first, refer to "Listening to broadcast stations which have not been programmed" (See page 14).





Using the main unit





For U.K.:

Press BAND to display "LW", "MW" or "FM".

→LW→MW→FM----

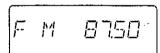
(The display changes each time the button is pressed.)

For Australia, New Zealand:

Press BAND to display "FM" or "AM".

→AM---FM

(The display changes each time the button is pressed.)

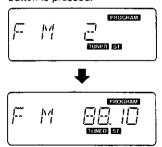






Press PRESET TUNING to select the preset channel.

The station is changed each time the button is pressed.

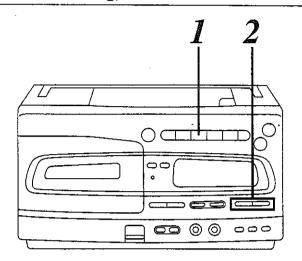


Using the remote control

- Press TUNER/BAND to display "FM" or "AM" (LW/MW).
- 2. Press the number button (1 to 10/0) to select the programmed station.

Listening to Radio Broadcasts

Listening to broadcast stations which have not been programmed (Manual tuning)





For U.K.

Press BAND to display "LW", "MW" or "FM".

→LW→MW-->FM-

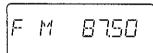
(The display changes each time the button is pressed.)

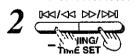
For Australia, New Zealand:

Press BAND to display "FM" or "AM".

,->AM→FM-

(The display changes each time the button is pressed.)





Press □<□/<□ or □□/□□ to tune in the broadcast station.

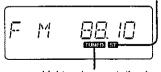
DD/DD: Press this to increase the

broadcast frequency.

□<
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
□
<l

FM stations can be selected automatically (see below).

Lights when an FM stereo program is picked up.



Lights when a station is tuned in properly.

Selecting FM stations automatically:

Keep the button depressed until the frequency display starts to change. A station with good reception is automatically selected and the selection process then stops.

Frequency display steps:

The frequency display changes in the following steps:

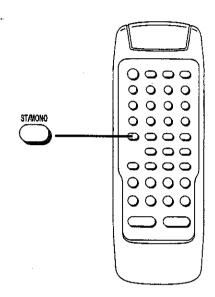
(For U.K.)

FM: 50 kHz steps LW, MW: 9 kHz steps

(For Australia, New Zealand) FM: 100 kHz steps

AM: 9 kHz steps

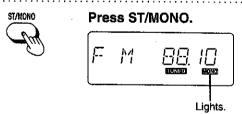
For better reception



When there is too much interference during an FM stereo broadcast

(Available only from the remote control)

Reduce the interference by setting the sound to monaural.



To return to stereo reception, repeat the same procedure and turn off the MONO display.

Note

The display will not light in the monaural mode even when a stereo broadcast is received.

Adjusting the antenna for better reception

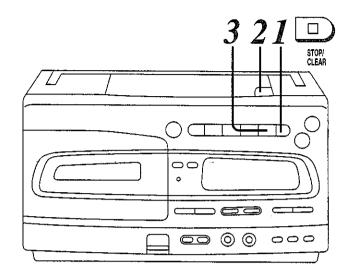
ĖΜ

Pull out the telescopic antenna and adjust its length and angle for optimum reception.

AM (LW/MW)

Turn the unit in the direction which gives the best results.

Listening to CD



1



Press □ STOP/CLEAR.

"NO DISC" appears on the display.

STOP-CLEAR

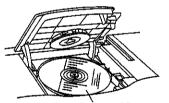
To stop play:

Press STOP/CLEAR.

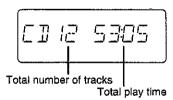
2



Press \(\equiv \text{CD EJECT to open}\) the CD lid, insert the CD and close the lid.



Insert a CD with its label facing up.

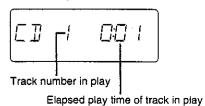


3



Press ▷□□ PLAY/PAUSE to start play.

Play now starts in sequence from track 1 to the last track, after which it will stop automatically.



STOP

To stop play temporarily:

Press DI PLAY/PAUSE.

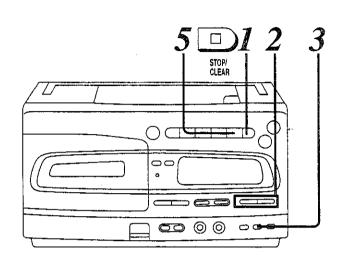
To resume play, press ▷□□ PLAY/PAUSE again.

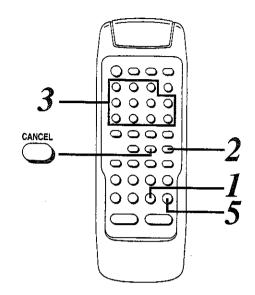
Note

Interference may affect radio or TV reception when CDs are played close to a radio or TV set. If this occurs, place the unit as far away from the set as possible.

Selecting and listening to your favorite tracks (Program play)

Up to 36 tracks can be programmed.



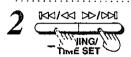


Using the main unit

Example: Selecting tracks 2, 5 then 7;

I STOP

Press - STOP/CLEAR.

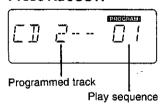


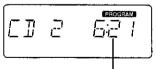
Press □<□/<□ or ▷▷/▷▷□ to select the desired tracks.

3



Press ADJUST.





Total play time of programmed track

4

Repeat steps 2 and 3.

5

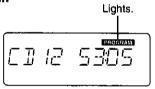


Press ▷□ PLAY/PAUSE.

The programmed tracks are played in the programmed sequence, and play stops automatically.

Using the remote control

- 1. Press E/CLEAR.
- 2. Press PROGRAM.



3. Press one of the number buttons (1 to 10/0, +10) to select the desired track.

To select a track with a number exceeding 10:

Example: Track 13; +10 3

Track 20; +10 +10 +10 10/0

Track 35; +10 +10 +5

- 4. Repeat step 3.
- 5. Press ►/II to start play.

When a track has been programmed in error:

(Available only from the remote control)

Press CANCEL in the stop mode.

Each time the button is pressed, the track programmed last is canceled.

To clear program play:

Press STOP/CLEAR in the stop mode.

When "FULL" appears on the display:

The number of programmed tracks has exceeded 36. No more tracks can be programmed.

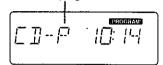
When "--:--" appears on the display:

The total play time of the programmed tracks has exceeded 120 minutes. However, programming and play are still possible.

Memory retention of programmed tracks:

The contents of the memory will be retained even if play is stopped or if the unit is turned off before its completion.

This appears when tracks have been programmed in the memory.

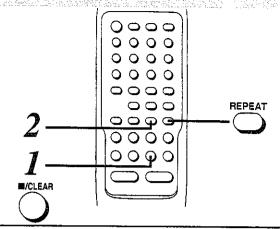


To check what has been programmed:

Press Ind/Ad or DD/DD while above display appears. Each time this button is pressed, the number of the track and the play sequence can be checked.

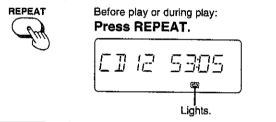
The program is erased in the following circumstances:

- ●When 🚔 CD EJECT has been pressed.
- When the AC mains lead is disconnected or the batteries are removed without inserting memory back-up batteries beforehand.



To repeat tracks (Repeat)

(Available only from the remote control)



To cancel repeat play:

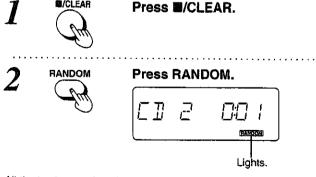
Press REPEAT again to turn indicator off.

For your reference:

- In program play (see page 16), the unit plays the programmed tracks in the programmed sequence repeatedly.
- You can enjoy the same track over and over by programming only one track.
- •When program play is canceled, the repeat mode is also deleted.

Playing selections in random order (Random play)

(Available only from the remote control)



All the tracks are played at random, and play automatically stops.

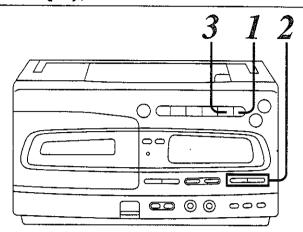
To cancel random play:

Press ■/CLEAR to turn RANDOM indicator off.

Note

Random play with the programmed tracks is not possible.

Starting CD play from a desired track (Direct play)



(Using the main unit)

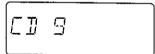
Example: Starting disc play from track 9;

1 STOP

Press ☐ STOP/CLEAR.



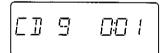
Press □<
□
display disired track number
(9).



3



Press ▷□□ PLAY/PAUSE to start play.

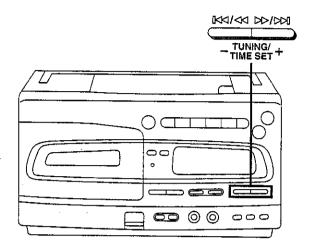


All the tracks starting from the track selected and ending with the last track are played in sequence, and play automatically stops.

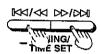
(Using the remote control)

- Press ■/CLEAR.
- Press one of the number buttons (1 to 10/0, +10) to select the desired track.

To select a track with a number exceeding 10; see page 16.



To skip tracks



During play:

Press ▷▷/▷▷□ to skip ahead to the start of the next track.

Press □ to skip back to the start of the current track.

By repeating this operation, you can skip tracks in the number that corresponds to the number of times you pressed the button

Note

In random play (see page 17), you cannot skip to the beginning of the track that has been already played.

For your reference:

In program play (see page 16), you can skip forward and backward in the programmed sequence.

To search forward or backward



During play:

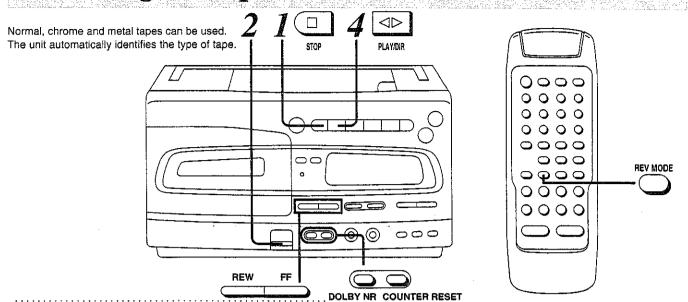
Keep pressing ⊳/⊳⊳ to advance disc play rapidly.

Release the button when the desired position on the disc is reached.

For your reference:

During program play (see page 16) and random play (see page 17), search will only take place within the track in play.

Listening to Tapes

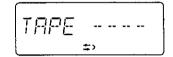






Press

STOP







Press ≜ EJECT.



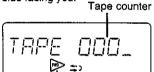


Load the tape and close the

When the lid is closed, the tape travel direction is automatically set to play the side facing you.



With the side on which playback is to commence facing you.



Tape travel direction indicator



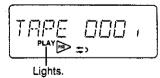


Press <> > PLAY/DIR.

Playback now starts.

While is displayed, the foward side is played back.

While **(** is displayed, the reverse side is played back.



Type of tape which can be played on this unit:

Normal/TYPE I	0
CrO2/TYPE II	0
Metal/TYPE IV	0



To stop play:

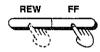
Press [] STOP.



To listen to the other side of the tape:

Press

○ PLAY/DIR during playback.



To rewind or fast forward the tape:

Press REW or FF.



To reset the tape counter to "000...":

Press COUNTER RESET.

Selecting the Dolby noise reduction function



Press DOLBY NR.

The DONR indicator lights.

To release the Dolby NR function:

Press DOLBY NR again to turn off the DONR indicator.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

Selecting the reverse mode

(Available only from the remote control)



Press REV MODE to select the mode.

- : The tape plays from the foward side to the reverse side, and it then stops automatically.
- : The tape plays repeatedly until the
 STOP is pressed. (In the recording mode, the sound is recorded from the forward side to the reverse side and it then stops automatically.)
- Only one side of the tape is played, and then the tape stops automatically.

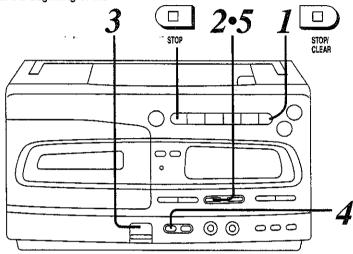
Recording CD

Normal and chrome tapes can be used. The unit automatically identifies the type of tape. Any change made to the volume or equalizer effect during recording will not affect the recording.

Easy CD recording

All the tracks are recorded in their original sequence onto a single tape. (The reverse mode is automatically set to \$\times \cdot).)

Only part of a track way be recorded at the end of the forward side. This track will be re-recorded in its entirety at the beginning of the



Insert a CD.

There is no need to take up the leader tape.



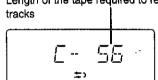
Press STOP/CLEAR.

EASY CD REC

Before loading the tape:

Press EASY CD REC to find out how long the tape must be to accommodate the recording of all the tracks.

Length of the tape required to record all



3



Press

EJECT and load the tape, which is longer than the length indicated in step 2.

With the side on which recording is to commence facing you.



(Example: 60-minutes tape) The tape travel direction is automatically set to play the forward side. (The ">>" display lights.)



Press DOLBY NR to select the Dolby noise reduction setting. (See page 19.)

FASY OD REC



Press EASY CD REC to start recording.

When this button is pressed, the leader tape is rewound and after a 10-second blank is recorded, recording starts.

(The recording level is set automatically.)

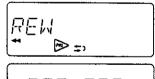
Tape now rewinding

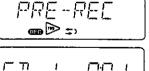


10-second blank now being recorded



Recording starts





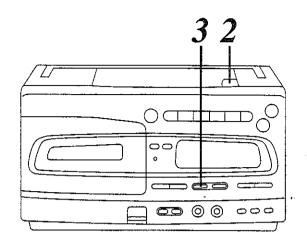


To stop recording:

Press ☐ STOP button. The CD play also stops at the same time.

For your reference:

When you intend to record especially important material, ensure you replace worn out batteries beforehand, or simply plug the unit into a household mains outlet.



Recording tracks from several CDs onto a single tape

If there is still room on the tape after one CD has been recorded, the unit will be set to the recording standby mode.

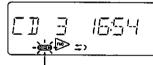
1

Make a recording from the first CD.

2



Press \triangleq and change the CD.



Flashes.

3



Press EASY CD REC.

Recording now starts from the position on the tape.



When another CD is not going to be recorded in succession, press \square STOP to release the recording standby mode.

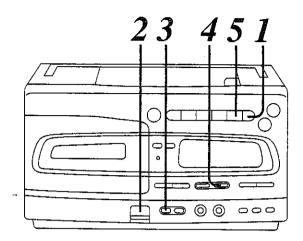
Recording your favorite tracks

After programming your favorite tracks (see steps 1 to 4 on page 16), perform steps 2 to 5 on page 20.

Your attention is drawn to the fact that recording pre-recorded tapes or discs on other published or broadcast material may infringe copyright laws.

Type of tape which can be used for recording:

Normal/TYPE I	0
CrO ₂ /TYPE II	0
Metal/TYPE IV	×



Recording using an alternative method to easy CD recording

This method is used in the following cases:

- When recording CD tracks onto the remainder of a tape containing recorded material
- •When recording from the reverse side
- When recording tracks with a long time in their original sequence

1



Insert the CD and press \square STOP/CLEAR.

2



Press EJECT and load the tape with the side to be recorded first facing you.

Play and find the position on the tape where the recording is to start.

(When recording from the start of side A or B, have the leader tape wound up before proceeding.)

3



Press DOLBY NR to select the Dolby noise reduction setting. (See page 19.)



Press REV MODE on the remote control to select the reverse mode. (See page 19.)

4



Press REC PAUSE.

The REO indicator flashes.

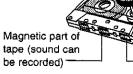
5



Press ▷ □ PLAY/PAUSE.

Recording now starts.

To take up the leader tape:



Leader tape (sound cannot be recorded)

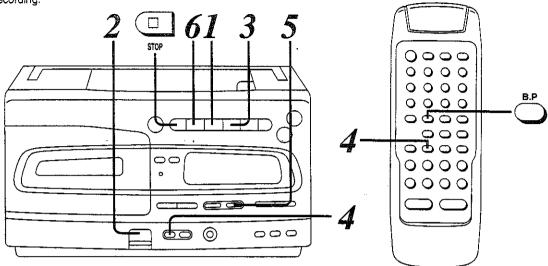
Recording Radio Broadcasts

Normal and chrome tapes can be used.

The unit automatically identifies the type of tape.

The recording level is set automatically.

Any change made to the volume or equalizer effect during recording will not affect the recording.



Take up the leader tape before proceeding. (See page 21.)



For U.K.:

Press BAND to display "LW", "MW" or "FM".

→LW-→MW-->FM-

(The display changes each time the button is pressed.)

For Australia, New Zealand:

Press BAND to display "FM" or "AM".

 \rightarrow AM \rightarrow FM

(The display changes each time the button is pressed.)





Press

EJECT and load the tape.





Press PRESET TUNING to select the broadcast station.







Press DOLBY NR to select the Dolby noise reduction setting. (See page 19.)





Press REV MODE on the remote control to select the mode. (See page 19.)



Press REC PAUSE.





Press □ PLAY/DIR.

While "" is displayed, recording starts from the forward side.

While " is displayed, recording starts from the reverse side.



To stop recording:

Press ☐ STOP.

To stop the recording temporarily:

Press REC PAUSE. (The RED indicator flashes.) To resume the recording, press < ▷ PLAY/DIR.

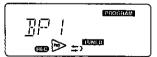
When there is too much interference during AM (LW/MW) recording:

(Available only from the remote control)



Press BP.

Select "BP1", "BP2" or "BP3", whichever yields less noise. (The sound may be interrupted.)

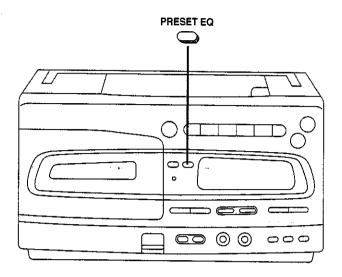


Note

BP3 is available only for LW.

Selecting the Equalizer Effect

Four equalizer effects have been stored in the unit.



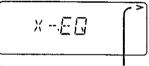
PRESET EQ



Press PRESET EQ to select the desired equalizer effect.

→X-EQ→C-EQ→S-EQ OFF-EQ←V-EQ←

(The display changes each time the button is pressed.)



The display indicates selected equalizer effect.

Please note that the position of arrow mark (legibility) depends on the viewing angle.

About stored equalizer effects:

X-EQ (S-XBS): This gives an added punch to rock music, etc.

C-EQ (CLEAR): This boosts the treble range of music.

S-EQ (SOFT): This produces a soft, background music effect.

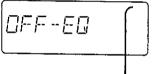
V-EQ (VOCAL): This enhances vocals.

When the equalizer effects are not going to be used (to listen to the original sound):

PRESET EQ

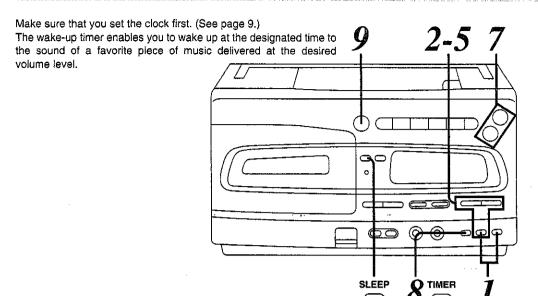


Press PRESET EQ.



The display indicating the equalizer effects is cleared.

Using the Wake-up Timer



Example: Programming to play a CD from 7:00 to 8:30;

TIME CHECK

Press TIME CHECK to display timer ON and OFF time.

→Timer ON/OFF times —

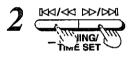
Original display←Present time←

(The display changes each time the button is pressed.)

ADJUST MEMOR



Press ADJUST.



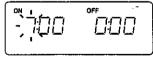
[Setting the play start (ON) time]

Press ⊮⊲/⊲⊲ or ▷⊳/▷⊳□ to display "7" for the hour.

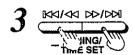
-0-1-2...6-**7**-8...23-

(The display changes each time the button is pressed.)





Press ADJUST.



Press □ or ▷ to display "00" for the minute.

-00-01...03...29-30...59-

(The display changes each time the button is pressed.)





Press ADJUST.



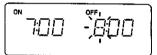
[Setting the play end (OFF) time]

Press ⊕⊲/⊲⊲ or ⊳⊳/⊳⊳□ to display "8" for the hour.

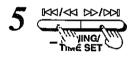
-0-1-2...6-7-8...23-

(The display changes each time the button is pressed.)





Press ADJUST.

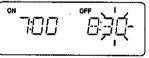


Press ⊕⊲/⊲⊲ or ⊳/⊳⊳□ to display "30" for the minute.

--00-01...03...29-**30**...59--

(The display changes each time the button is pressed.)





Press ADJUST.



Select the sound source to be played.

Listening to radio broadcasts:

Follow the steps 1 and 2 on pages 13 and 14.

Listening to CD:

Follow the steps 1 and 2 on page 15. It is possible to program tracks on a CD (see steps 1 to 4 on page 16) and have them played at the time set by the timer. If the CD is ejected, or loaded after the programming, the timer play will start from the first track.

Listening to tapes:

Follow the steps 1 to 3 on page 19.

7



Press VOLUME — or VOLUME + to set the volume to be heard during play.

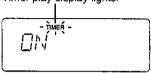
The volume level during timer operation is now set.

8



Press TIMER.

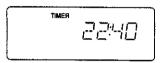
Timer play display lights.



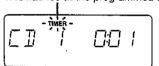




Press POWER to turn the unit



This flashes at the programmed time.



TIMER



To release the timer function:

Press TIMER and clear the timer play display.

The OFF display now appears.

The timer does not operate but the time setting is stored in the memory.

To check what has been programmed (only when unit is OFF):

(Available only the unit is operated on AC power)

Press TIME CHECK.

The display shows the following information each time the button is pressed.

- 1. Programmed time
- 2. Programmed source
- 3. Present time (Original display)

To enjoy play after programming (after step 8):

- 1. Start playing the desired sound source.
- 2. After play turn the unit off.

Even if you change the volume level or sound source, whatever was programmed is restored at the wake-up time.

Using the timer at the same time every day:

First check that TIMER appears on the display and then turn the unit off. Follow the steps 6 to 9 to change the source and volume for the timer function.

To stop the timer in mid-operation:

Turn the unit off.

Note

The timer will not operate if the unit is on.

To use the sleep timer in conjunction with the wake-up timer

For example, falling asleep while listening to an FM program and waking up the next morning listening to a CD: See page 28 for the sleep timer operation.

- 1. Set the timer for playback to listen to the CD (steps 1 to 8 on pages 24 and 25).
- 2. Listen to the radio.
- 3. Press SLEEP.

Note

You cannot make a different CD program setting for the timer play-back and sleep timer.

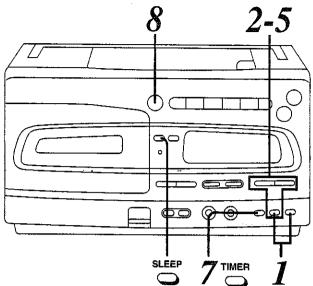
For your reference:

Even if the volume is changed for the sleep timer, the sound will be heard while the timer play is operating at the volume which was adjusted when setting the timer play.

Using the Recording Timer

Make sure that you set the clock first. (See page 9.)

The recording timer makes it possible to record radio program of your choice at the designated time.



Example: Programming to record a program from 13:00 to 14:30;

TIME CHECK

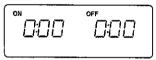
Press TIME CHECK to display timer ON and OFF time.

→Timer ON/OFF times -

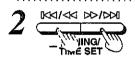
└Original display←Present time ←

(The display changes each time the button is pressed.)

ADJUST



Press ADJUST.



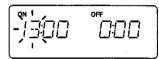
[Setting the recording start (ON) time]

Press □
|
|
|
|
to display "13" for the hour.

-0-1-2...12-**13**-14...23-

(The display changes each time the button is pressed.)





Press ADJUST.

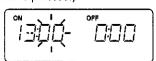


Press □ or ▷▷/▷▷□ to display "00" for the minutes.

-00-01...03...29-30...59-

(The display changes each time the button is pressed.)





Press ADJUST.



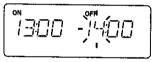
[Setting the recording end (OFF) time]

Press □
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|
|

-0-1-2...12-13-14...23-

(The display changes each time the button is pressed.)







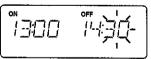
Press □
|
|
|
or >
|
|
by
|
to
display "30" for the minutes.

-00-01...03...29-**30**...59-

Press ADJUST.

(The display changes each time the button is pressed.)





Press ADJUST.



Prepare to record the program.

- Load the tape with the side to start recording facing you.
- 2. Select the broadcasting station. (See pages 13 and 14.)
- Select the Dolby noise reduction setting and reverse mode. (See page 19.)

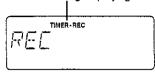
Turn down the volume if you do not wish to hear the sound during the recording. (This will not affect the recording level.) 7

IMER



Press TIMER, and press it again while "TIMER" is displayed.

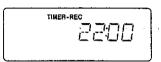
Timer recording display lights.



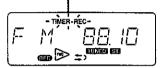




Press POWER to turn the unit off.



This flashes at the programmed time.



TIMER



Press TIMER and clear the timer recording display.

The OFF display now appears.

The timer does not operate but the time setting is stored in the memory.

To check what has been programmed: (only when unit is OFF)

(Available only the unit is operated on AC power)

Press TIME CHECK.

The display shows the following information each time the button is pressed.

- . 1. Programmed time
- 2. Programmed station
- 3. Present time (Original display)

To enjoy play after programming (after step 7):

- 1. Start playing the desired sound source.
- 2. After play turn the unit off.

Even if you change the volume level or sound source, whatever was programmed is restored at the time set for recording.

Notes

- •The timer will not operate if the unit is on.
- The recording timer is released after the programmed recording has performed.

To use the sleep timer in conjunction with the recording timer

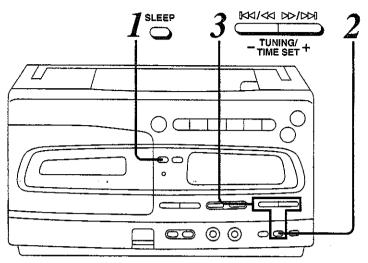
For example, falling asleep while listening to a CD and subsequently recording a late-night program on FM: See page 28 for the sleep timer operation.

- 1. Set the timer for recording (steps 1 to 7 on pages 26 and 27).
- 2. Play the CD.
- 3. Press SLEEP.

(Set the sleep timer so that the unit is turned off before the start of the timer recording.)

Using the Sleep Timer Function

The unit-off time can be set up to 120 minutes ahead of the present time.



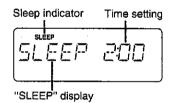
SLEEP



While the desired sound source is playing:

Press SLEEP on to operate the sleep timer function.

The original display is restored after "SLEEP" has appeared, and the unit is turned off after the time set has elapsed.



SLEEP



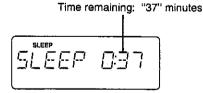
To release the sleep timer function:

Press SLEEP and press again while "SLEEP" is displayed.

The time setting will remain stored in the memory.

To check the time remaining during operation:

Press SLEEP.

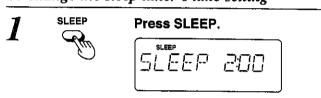


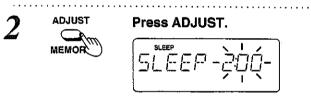
To change the time remaining during operation:

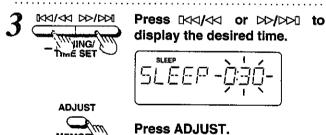
- 1. Press SLEEP.

The changed time is not stored in the memory. When you use the sleep timer function the next time, the original time prior to the change remains programmed.

To change the sleep timer's time setting







For your reference:

MEMOR

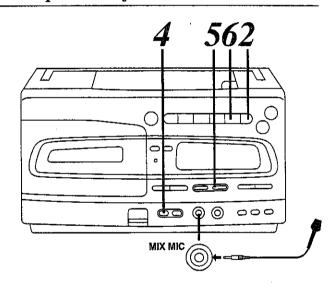
Once a particular time is set, it will remain stored in the memory until it is changed.

Using Microphone/Headphones

Microphone (plug type: Mini)

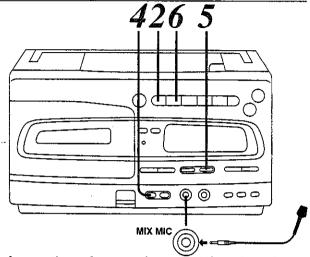
- Lower the volume and connect the microphone (not included).
- 2. Start playing a CD or tape or turn on the radio.
- 3. Start karaoke singing and adjust the volume.

Recording karaoke sound with accompaniment from a CD



- 1. Lower the volume and connect the microphone.
- 2. Insert the CD and press ☐ STOP/CLEAR.
- 3. Load the tape.
- 4. Select the Dolby noise reduction setting and reverse mode. (See page 19.)
- 5. Press REC PAUSE.
- Press ▷□□ PLAY/PAUSE and start the karaoke.
 Play and recording start.

Recording the sound through the microphone



- 1. Lower the volume and connect the microphone.
- 2. Press
 STOP.
- 3. Load the tape.
- 4. Select the Dolby noise reduction setting and reverse mode. (See page 19.)
- 5. Press REC PAUSE.
- 6. Press <> > PLAY/DIR.

Recording starts.

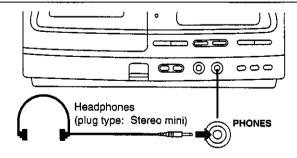
For your reference:

- To record, have the leader tape wound up first.
- Disconnect the microphone when it is not going to be used.
- If howling (a prolonged wailing noise) occurs while the microphone is used, use the microphone further away from the speakers or turn down the volume

Note

When karaoke singing with accompaniment from a CD, sound is heard only while the CD is playing. No sound is heard in the stop or pause mode.

Listening to sound with headphones



Lower the volume and connect the headphones (not included).

Avoid listening for prolonged periods of time to prevent hearing damage.

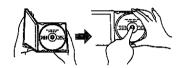
Concerning CD

Only compact discs having this mark can be used with this unit.



To remove a disc from its case

Press the center holder and lift the disc holding by the edges.



To hold the disc

Hold the disc by the edges so the surface is not soiled with finger-prints.

Fingerprints, dirt and scratches can cause skipping and distortion.
(Correct) (Incorrect)

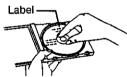






To store a disc in its case

Insert the disc label facing upwards and press downward at the center.



If the surface is soiled

Wipe gently with a soft, damp (water only) cloth.

(Correct)

(Incorrect)





If the disc is brought from a cold to a warm environment, moisture may form on the disc

Wipe this moisture off with a soft, dry, lint-free cloth before using the disc.

Improper disc storage:

You can damage discs if you store them in the following places;

- Areas exposed to direct sunlight
- Humid or dusty areas
- Areas directly exposed to a heat outlet or heating appliance

Handling precautions:

- Do not write on the label side with a ball-point pen or other writing utensils.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- •Do not soil with fingerprints.

Concerning Cassette Tapes

Selection of cassette tapes

Cassette tape exceeding 90 minutes:

These tapes are handy for their long playback and recording time but be careful about repeatedly stopping, starting, rewinding and fast forwarding these tapes in short intervals as they are thin, tend to stretch and may become entangled in the deck mechanism.

Do not use the Fe-Cr tapes (TYPE III) in this system:

If you use this tape, it is impossible to obtain the required flat frequency response.

If the tape loosens, take up the slack

Tape slack may cause the tape to break.



To prevent erasure of recorded sounds

Remove the erase-prevention tabs with a screwdriver or a similar object.



Tab for side B

To re-record on a protected cassette, cover the slot with adhesive tape.



Detection hole

Do not cover the detection holes on chrome and metal tapes.

Improper tape storage:

You can damage tapes if you store them in the following places;

- In high temperature [35°C or higher] or high humidity (80% or higher) areas
- In a strong magnetic field (near a speaker, on top of a TV, etc.)
- This can erase a recording.
- · Areas exposed to direct sunlight

Maintenance

Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

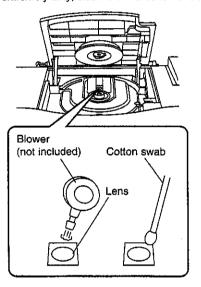
Wring the cloth well before wiping the unit.

Wipe once again with a soft, dry cloth.

Never use alcohol, paint thinner, benzine, or chemically treated cloths to clean this unit. Such chemicals may damage the finish of your unit.

Lens care

Open the CD lid and clean the lens with a blower (not included). If the lens is extremely dirty, clean it with a cotton swab.

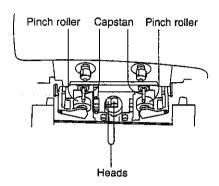


Tape head care

To assure sound quality for recording and playback, be sure to clean the tape heads after approximately every 10 hours of use.

- 1. Press POWER to turn the unit off.
- 2. Press ▲ EJECT to open the tape lid.
- Clean the tape heads, pinch rollers and the capstan shafts with a cotton swab (or a soft, lint-free cloth) slightly moistened with isopropyl alcohol.

Do not use any solution other than alcohol for head cleaning.



Quick Reference of Remote Control Operations

	Common operations	
SLEEP DISPLAY POSITION O O O	Turning the unit ON/OFF (when a household mains outlet is used)	POWER
SANZO B. F. TUNING . TARE 05 CANCE. C. PROGRAM COUNTER RESET REVISION TRAPPAT	Adjusting the volume	- VOLUME +
	Selecting the display (See page 11.)	DISPLAY
	One-touch play (See page 12.)	(Radio) (CD) (Tape) TUNERBAND
	Sound quality adjustment/timer operation	ons
	Selecting the equalizer effects (See page 23.)	(The display changes each time the button is pressed.) →X-EQ→C-EQ→S-EQ¬ PRESET EQ OFF-EQ←V-EQ OFF-EQ←V-EQ
SLEEP DISPLAY PRICES THEFTHAND TO THEFTHAN	Setting/releasing the sleep timer (See page 28.)	SLEEP
TAPE BII CAME C PROGRAM	Tuner operations	
OGOSTRA REVIEWS RANDOM REPEAT NEW CO.	Listening to a programmed radio station (See page 13.)	TUNER/BAND O O O O O O O O
- YOUMME +	Listening to a radio station which has not been programmed (See page 14.)	TUNER/BAND TUNING +
	Selecting FM reception in stereo or mono (See page 14.)	STANONO
	Reducing noise during the recording of AM (LW/MW) programs (See page 22.)	B.P.

Quick Reference of Remote Control Operations

	CD operations	
	Starting play (See page 15.)	►/II
EGIVEE SLEEP DISPLAY PMATES	Temporarily stopping play (See page 15.)	►/II
	Stopping play (See page 15.) To clear program play (See page 16.)	IS/CLEAR
	To skip tracks (See page 18.)	Č Č
TAPE OIL CANCEL PROGRAM COUNTER	To search forward or backward (See page 18.)	ÖÖ
OQUINTER SEY HOUSE RANDOM REPEAT THEY OUT TO	Listening from a particular track (See page 18.)	0 0 0 0 0 0 0 0 0 0 0
O O O O	Selecting and listening to favorite tracks (See page 16.)	PROGRAM → Ó Ó Ó Ö → ►/81
	Listening to a track repeatedly (See page 17.)	REPEAT
	Listening to tracks at random (See page 17.)	RANDOM
	To erase last programmed track (See page 16.)	CANCEL
	Tape operations (See page 19.)	
GOVER SLEEP DEPLAY RESTS	Starting play	Ö
	Changing the direction	Ö
00000	Fast forwarding	FF
1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Rewinding	REW
	Stopping play	Ö
O O NOLUMB +	Recording (See page 21.)	•II • • () / ()
	Selecting the reverse mode	REV MODE
	Resetting the tape counter to 000_	COUNTER RESET

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

Problem	Probable cause(s)	Suggested Remedy
Common problems		
No operation. (When batteries are used	Is the AC mains lead still connected to the unit while batteries are being used?	Disconnect the AC mains lead.
as the power source.)	Are the batteries flat?	Replace them with new ones. Alternatively, use a household mains outlet as the power source.
	Have the batteries been installed incorrectly with their (+) and (-) polarities reversed?	Align the (+) and (-) polarities correctly.
"ERROR" appears.	Have you made a mistake in operation?	Read the operating instructions and try again.
"U01" appears.	The batteries are flat.	Replace them with new ones. Alternatively, use a household mains outlet as the power source.
"U02" appears.	Preparations have not been made to supply power to the unit.	Install the batteries or connect the AC mains lead.

While listening to CD			
Play does not start. No	Has the CD been installed upside down?	Install the CD with the label side facing up.	
display of track numbers, etc.	Has condensation formed on the unit's CD section?	Turn the unit on and leave it on for about an hour before further operation.	
Certain sections are not	Is the CD dirty?	Wipe it with a soft cloth.	
played properly.	Is the CD scratched?	Replace with a new CD.	

While listening to tape		
No recording.	Have the tape's erase-prevention tabs been removed?	Cover the holes with adhesive tape.
High level of noise; poor	Are the heads soiled?	Clean them.
sound quality.	Have the heads been magnetized?	Demagnetize them using a head eraser available from an audio store.

While listening to the radio			
High level of noise; stations cannot be tuned in well.	Has the antenna been adjusted properly?	Try changing its direction.	
Noise heard during AM (LW, MW) reception.	Are you using a remote control of other appliance near the unit?	Use the remote control at a distance.	
	Are you operating the unit and a TV set at the same time?	Place the unit at a distance from the TV. Alternatively, turn off the TV's power.	

While using the remote control			
No operation.	Are the batteries flat?	Replace them with new ones.	
	Have the batteries been installed incorrectly with their (+) and (-) polarities reversed?	Align the (+) and (-) polarities correctly.	
	Is the remote control's transmitter pointed at the unit's sensor?	Check whether anything is obstructing the path between the two and point the remote control squarely at the unit's sensor and operate.	
	Is the unit's sensor exposed to direct sunlight or strong fluorescent light?	Shield the sensor from strong sources of light.	

Troubleshooting Guide

Problem	Probable cause(s)	Suggested Remedy
While using the tin	ner	
No timer operation at the programmed time.	is the unit on (when the wake-up timer and recording timer are being used)?	Turn off the unit upon completion of the settings.
	Has the programmed timer indicator (TIMER, TIMER-REC or SLEEP) lighted?	Operate again so that the display lights up.

About condensation

- "Condensation" refers to the droplets of water which form, for example, on a cold winter's day on the window panes in a warm room. This unit contains a lens in the CD section, and condensation may form on it in the following cases.
- •Immediately after the heating has been turned on in the room
- •In a steamy or very humid room
- •When the unit is suddenly moved from a cold environment to a warm environment

In cases like these, the unit may not function properly. Turn the unit on and wait about an hour before attempting any further operations.

Technical Specifications

Radio Frequency range (For U.K.)

LW 144-288 kHz MW 522-1611 kHz ΕM 87.5-108.0 MHz

(For Australia, New Zealand)

 ΔM 522-1611 kHz FM 87.5-108.0 MHz

CD player

Sampling frequency 44.1 kHz Decoding 16 bit linear Beam source Semiconductor laser (wavelength 780 nm) No. of channels 2 channel, stereo 20 Hz-20 kHz (+1, -2 dB) Frequency response Wow and flutter Less than possible measurement data

D/A converter

MASH (1 bit DAC)

Tape recorder

Track system 4 track, 2 channel, stereo Recording system AC bias **Erasing system** AC erase Monitor system Variable sound monitor

Frequency range

Normal 30-16000 Hz CrO₂ 30-17000 Hz Metal 30-17000 Hz

General

Power requirement

AC 230-240 V, 50 Hz,

Power consumption; 42 W

Battery 12 V (Eight "R20/LR20" size, UM-1 batteries)

Memory back-up for

Dimensions (W×H×D)

computer/clock 6 V (Four "R6/LR6" size, UM-3 batteries)

Speakers

2 Woofer 8 cm 2 Tweeter 6×7 cm

Jacks

Input MIX MIC; 5 mV (200-600Ω) Output SPEAKERS; LOW 2.7-8Ω

HIGH 6-16Ω

PHONES; 32Ω

586×153×249 mm

Main unit; 297×153×249 mm

Speaker box: 150×152×233 mm

6.3 kg without batteries

Note:

Weight

Specifications are subject to change without notice.

Weight and dimensions are approximate.

MASH is a trademark of NTT.

This apparatus was produced to BS 800.

Matsushita Electric Industrial Co., Ltd.

Central P.O. Box 288, Osaka 530-91, Japan